Weekly Bureau of Information for All Who Till the Soil or Are Interested in Making Homes

AGRICULTURAL DEPARTMENT

All inquiries and communications addressed to The Times-Dispatch will receive prompt attention. This department will appear each Monday, and contributions or suggestions will be welcomed.

Facts for Farmers, Stock Breeders, Poultry Raisers, Orchardists, Truckers and Gardeners---Queries and Answers

WINTER FEED FOR THE DAIRY COW

During the winter months it is generally found difficult to provide such food as is necessary for the dairy cow to keep up the regular flow of milk.

At this season of the year feed is generally scarce—the proper kind for the dairy cow—and that which we have on hand is often of an inferior quality.

After coming off the green fresh grass they do not relish such dry feed, and, being of an inferior quality, one will soon notice a great decrease in the flow of milk.

For this reason it is very important for the farmer to try and provide an abundance of different feeds to make up for this dry or inferior feed.

Of course, the flow of milk cannot be kept up to what they give during the spring and summer when pastured, but with plenty of first-class hay, such as alfalfa and good clover, and fine feed for bran and cornmeal kept on hand that it may be fed liberally two or three times a day as slops, there will not be so much decrease in the milk supply, after all. That is, if it is given to them liberally and regularly.

Do not think it is a waste to feed such feed when there isn't anything but dry hay of some kind to feed on. On the latter, the cow can barely maintain her flesh, much less keep up the milk supply.

When we have good clover hay and alfalfa, not so much of the bran, fine feed or meal is required, as both, when cured properly, are very strong feeds and cattle thrive on them.

I am not going to attempt to give the amount that should be fed, as I leave that for the dairyman to decide for himself. What I wish to impress upon the reader's mind is this: The necessity of having on hand always a liberal supply of bran, meal, fine feed, etc., to go with the dry hay or corn fodder, which is generally of an inferior quality, fed at this season of the year.

Without the above feed mentioned, it is impossible for the dairyman to obtain good results during the season when cattle are not pastured.

Apples should be kept just above the freezing point in the cellar, if possible. Potatoes at a temperature of 40 degrees and squash in a dry place where they will not freeze.

The squashes should be fed early in the winter, as under ordinary storage conditions they cannot be depended upon for long keeping.

Of the apples, the culls of the early winter varieties are, of course, first used. Those of the longer-keeping varieties may be reserved for later feeding.

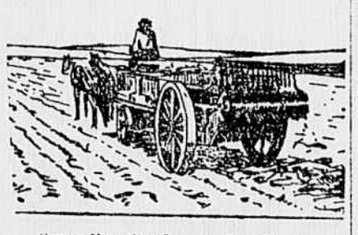
A bran mash with chopped beets or carrots stirred into it is a great treat, and is a beneficial form of feeding which should be offered occasionally. Be sure that the bran or meal offered to the cow is sweet and good, or trouble may result.

The corn stalks may be fed once a day and clover or oat hay at another meal. The last meal of the day being the bran and vegetable mixture.

Squashes and large beets should always be partly cut up, as they are difficult for a cow to manage when whole.

DO YOU MAKE THE MOST OF FARM MANURE?

Of all fertilizers, farm fertilizers—farm manure—is the oldest and still the most popular. It consists of the liquid and solid excreta of farm stock, and the little on which the extrement is dropped.



Spreading Profits on the Fields.

A well-kept manure heap may be safely taken as one of the surest indications of thrift and success in farming. Neglect of this resource causes losses, which, though little appreciated, are vast in extent. Waste of manure is both so common as to breed indifference, and so silent as to escape notice.

According to recent statistics there are in the United States in round numbers, 28,360,000 horses and mules, 70,000,000 cattle, 49,060,000 hogs, and 57,500,000 sheep. Experiments indicate that if these animals were kept in stalls or pens throughout the year, and the manure carefully saved, the approximate value of the fertilizing constituents of the manure produced by each horse or mule annually would be $27; by each head of cattle, $20; by each hog, $4, and by each sheep, $2. The fertilizing value of the manure produced by the different classes of farm animals in the United States, would, therefore, be for horses and mules, $764,160,000; cattle, $1,400,000,000; hogs, $198,000,000, and sheep, $115,000,000; or a total of $2,477,160,000.

These estimates are based on the value usually assigned to phosphoric acid, potash and nitrogen in commercial fertilizers, and are possibly somewhat too high from a practical standpoint. On the other hand, it must be borne in mind that no account is taken of the value of manure for improving the mechanical condition and drainage of soils, a consideration fully as important as the direct fertilizing value.

It is fair to assume that at least one-third of the value of the manure is annually lost through careless methods of management, and this estimate is conservative. Even at this figure we have the tremendous sum of $825,700,000 as the annual loss in the United States. This condition is the more unfortunate, because practically all of it could be prevented.

Not Too Busy to Go to School.

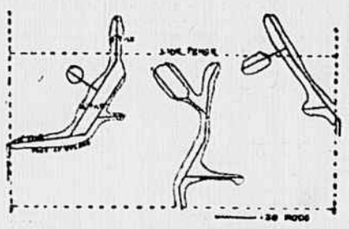
Alvin Ramseyer is one of the good farmers of his State, no matter what State he lives in. He owns a farm of 118 acres, on which he has nineteen and three-quarters miles of tile drains. In fact, he has tile placed forty feet apart all over his farm.

He follows a rotation of potatoes, wheat and clover, the farm being equally divided among the three crops. Last year Mr. Ramseyer harvested an average of 125 bushels of potatoes per acre, which he sold at 85 cents per bushel. He uses 1,000 pounds of a 4-16-10 home-mixed fertilizer per acre on his potatoes, and finds that it pays well.

Mr. Ramseyer is a very busy man, but he finds time to manage the arrangements for the farmers' day at the local Chautauqua, helps to arrange for the agricultural extension school and the farmers' institutes, and always plans to take the eight-weeks' course in agriculture given at the college of agriculture of his State in January and February.

LAND SHOULD BE DRAINED

Of the several conditions which influence the growth of crops none is more important than the amount of water in or on the soil. While water in a thin film around the soil grains is an absolute necessity to plants, and



On an eighty-acre field three systems of tile drainage were necessary. This shows the advantage with which two neighbors can co-operate in putting in a line of tile. An obstacle so trival as a line fence should not be permitted to prevent economical drainage. The owner of this land says that tile pays for itself every year, and that $200 expended on tile has raised the value of the eighty acres $1,000.

excess is as bad as a deficiency. Too much water is detrimental because:

1. It makes areas so soft that they cannot be cultivated. When these soft places are long and narrow in form, they cut the upland into irregular pieces that cannot be cultivated conveniently.

2. It delays cultivation, particularly in the spring.

3. It makes soil cold; (a) because in the spring more than half of the heat that the soil receives is used to warm this unnecessary water; (b) because its evaporation consumes heat that the soil could otherwise retain; (c) because its presence in the soil prevents the entrance and downward movement of rainfall, which in the spring is usually warmer than the soil.

4. It crowds out the oxygen from between the soil grains, thus hindering the necessary decomposition of organic matter in the soil.

5. It prevents all crop growth where it stands on the soil to a sufficient depth. Where it stagnates only a few inches from the surface of the soil, it prevents healthy root development below that depth. The shallow root system thus developed limits the depth from which the plant may get water, and with it plant food material.

BRIEF NOTES THOUGHT OUT BY THE WAYSIDE

Separate the breeding stock from the fattening hogs, also separate the larger from the smaller ones.

Great fun chopping down the useless live trees and chopping the dead ones on the ground.

There is a right way and a wrong way to prune any fruit tree. Each kind requires a different method of pruning, and it is important that the requirements of each kind be understood.

In order to handle the apple crop the grower should be provided with picking ladders, picking baskets, a grading table, a barrel press and barrels for the apples.

Apples should be picked with the stem intact and handled carefully to avoid bruising. Bruised apples do not keep well.

The aggressiveness of the American people is sure to place this country at the head of nations in the world's trade.

The distant apart that trees are set is governed by the kind and variety to be planted.

Now is a good time to organize a community study club. Some of the meetings might well be devoted to a study of garden flowers, shrubs and vegetables. "Better Home Surroundings" is a topic that should be of interest to all.

See that all weeds, grass and leaves are removed from around the apple trees. This sort of trash makes a good home for mice, and they like the green bark of apple trees.

A little alcohol and water rubbed quickly on the window panes and wiped dry will make them bright and shining.

Corn fodder or boards tied on the south side of apple or basswood trees will protect them from sunscald.

Alfalfa seed is expensive, and the heavier yields of hay are not usually secured until the second or third year or later.

It will facilitate the work of planting the orchard if the land is laid out in straight rows the distance apart the trees are to be planted.

After providing plenty of windows, a coat of whitewash will add greatly to the light of the stables.

Protect the Roses.

Roses must be given particular attention. They seem to be in a class by themselves so far as winter protection is concerned. My plan is to bend the bushes flat, and cover with dry soil, after which a covering is given that will exclude rain. My experience has been that wet soil about the branches does about as much harm to the plants as exposure to the weather of winter would.

But if moisture can be kept out, a five or six-inch covering of dry earth almost always brings my tenderest hybrid perpetuals through in pretty good shape. Of course, I expect to shorten their canes about half, but I would do that anyway, in order to induce the production of good, strong branches from near the base of the plant. Old oilcloth, linoleum or canvas will prevent rain from soaking into the soil better than anything else I know of, but common tarred roofing is good. So is a roof of thin boards laid shingle fashion, if care is taken to give it enough slant.

Value of Market Reports.

The farmer who fails to keep fully informed as to the condition of the markets and the value of the products which he has for sale is making a serious business mistake. Such a mistake, if made in any other business, would mean immediate bankruptcy.

Most buyers of stock and produce are not philanthropists, but are looking for the dollars, and they usually look closely. They are also well posted concerning the market value.

There is no excuse in these modern times for dereliction in this respect on the part of farmers. The mail brings the daily newspapers containing the market reports, and the telephone may be brought into use when required.

Keep in touch with the markets, especially for those products which you have for sale or may soon have to offer.

CURING AND KEEPING SMOKED MEAT

Meat that is to be cured should always be thoroughly cooled and be cut into convenient sizes, before it is put into the brine or packed in dry salt. The pieces most commonly used for this purpose are ham, shoulder and bacon pieces from pork; and the cheaper cuts, such as the plate, shoulder and chuck ribs, of beef. Mutton is very seldom cured and preserved, but is mostly used fresh. All the pieces that are to go through the curing process should be well trimmed, so as to have no ragged edges or scraggy ends left, as these portions will become dry and be practically wasted.

The two methods of curing meat that are commonly used are the brine process and dry-curing. Brine-cured ments are probably the best for farm use, for several reasons. In the first place, on most farms it is impossible to secure a desirable place in which to dry-cure. It is also less trouble to handle the meat when brine-cured; as the only attention that it requires is to properly prepare and pack the meat in the vessel, and prepare the brine for it. Whereas, in the case of the dry-curing method, it requires considerable time to rub and salt the meat at different times.

During moderate weather, smoked meat may be left in the smoke-house for some time. The house should be kept perfectly dark, and well enough ventilated to prevent dampness. A dry, cool cellar or attic, with free circulation, will be a satisfactory place for smoked meats at all seasons, if it is kept dark and the flies are excluded.

If to be held only a short time, hams and bacon will need only to be hung out separately, without covering. For longer keeping, it will be necessary to wrap them first in waxed paper and then in burlap, canvas or muslin, and to hang them in an an airy, cool place; the object being to gain a uniform temperature and to keep away insects.

IN AND OUT AMONG THE COWS

Cleanliness first, last and all the time, should be the watchword of every dairyman.

If the salt is not well mixed through the butter it will crystallize on the outside and probably make the butter streaked.

We may look at the silage question from any angle and we are forced to accept it as the cheapest food known for stock.

When we go out to buy dairy cows do we not always find a scarcity of good ones and too many poor ones? In breeding, therefore, this is a fact to be remembered.

Many good cows that are well bred and well fed and given proper care utterly fail as milk producers because they do not have a good stable during the winter.

Wheat bran is a good dairy feed and generally speaking, it is a good supplement to other grain feeds.

Even with the greatest care, it is hard to keep the cow stable ventilated as it should be.

We never owned a cow that was a large milker that was not a big drinker and any cow will drink much more in a warm stable than she will in a cold one.

Grinding corn for the cattle makes more beef and less pork from the same amount of corn. If the hogs follow the cattle it does not pay to grind, especially when hogs are about as high in price as cattle, for generally the combined amount of beef and pork is greater from whole corn than from ground corn.

The Poultry Section

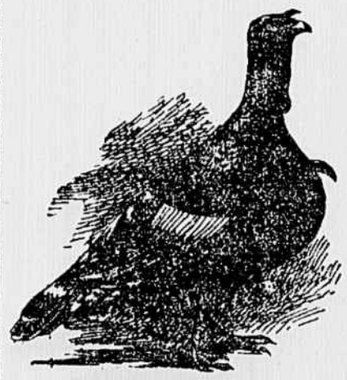
In the Chicken Yard.

Have the sand and dry-dirt boxes in good shape. Hens need the dust. The sand is best for grinding, and should be placed in hoppers that no dirt may become mixed with it.

Have hoppers for the mash feed, so arranged that the hens can't get their feet in. They should never be allowed to eat filth. Feed them feed.

Meat in some form should be supplied to the fowls. They need protein, and in beef scraps this is found in good quantities. Good beef scraps contain from 50 to 60 per cent. It should be well aired and clean.

Locate as many egg customers in the nearest city as you are able. Keep the profits that usually go to the grocer and commercial agent for yourself. Cash for eggs is the best way to success.



A most popular bird at this season. Lucky indeed is the farmer who has a large flock of them to sell.

RIGHT FEED GIVES HARD-SHELLED EGGS

The feeding of hens for the production of hard-shelled eggs, not easily breakable in handling, is possible and demands attention. Shells vary greatly in strength. A strong, heavy shell is not nearly so likely to be broken by the jars, jolts and rough handling incident to ordinary shipment as a weak one.

Chemical analysis shows that the shell of the egg is largely carbonate of lime, but that it also contains carbonate of magnesia, mineral phosphate and some organic matter. If strong shells are to be produced, the mineral elements must not be lacking. Grains that are ordinarily fed do not contain these mineral elements in sufficient proportions, and an additional and separate supply is necessary. Fortunately, these mineral elements are available in much cheaper forms than in grains. Lime is the principle ingredient of oyster shells, which may be procured for about $12 a ton. Iron, magnesia and often phosphorus in many kinds of artificial grit, may be procured for about the same price, while these elements in grain would cost at least double these figures.

Bone meal contains phosphorus in appreciable amounts, besides lime, magnesia, etc., and, while expensive, it is effective in giving the shell an evenness and fineness of texture which adds much to its strength. It is, therefore, often used as an ingredient for dry mashes for laying flocks, usually in amount varying from 3 to 5 per cent.

Eggs that won't break give the poultryman greater profits than eggs that will. Make your hens lay the non-breakable kind.

FIXING UP THE CHICKEN-HOUSE

"Have you fixed up the chicken-house?" This question was recently asked at a meeting of farmers, and only one raised his hand in the affirmative.

Outside—Nail down loose battens, siding, shingles or roofing. Put in whole glass where any is broken. Use building paper, rather than banking, for the latter is often wet from the eaves and causes dampness.

Inside—If the house is of wood and single-boarded, line it with building paper of some kind. The roosting chamber should have two or three thicknesses of paper overhead and on all sides. This is commonly formed by the roof and sides of the building, and the dropping boards for the floor.

As the dropping boards are commonly 3 feet 8 inches wide, this width will admit of using three roosts, which may be made of poles, or 2x4's, slightly rounded, nailed edgewise on cross pieces of 2x6 resting on the dropping boards. The length of the three roosts will be determined by the number of fowls, allowing eight feet for twelve hens.

The roosting chamber must be made larger or smaller, according to the number of fowls kept, by a movable partition of light framework, covered with cloth or building paper. A curtain of muslin or burlap, or some other material, is hung in front of the roosts, to prevent drafts and conserve the natural heat of the flock. By the use of the partition and curtain, the comfort of the flock may be maintained in all kinds of weather.

Ample nest-room should be provided, for supplying which cracker-boxes may be divided and placed on supports beneath the dropping-boards. Eight nests are sufficient for twenty-five hens.

A dust-box should be placed in front of a window, and kept filled with sifted hard-coal ashes.

There should be a hopper for dry-mash on the wall; also one for grit, shells and charcoal.

A water-table should also be provided, so that the water may not be easily tipped over, or filled with litter when the hens are scratching. The floor, of whatever kind, should be covered with litter to the depth of six inches; and this should be renewed as often as it becomes foul or damp. The grain feed should be scattered in the litter, to induce exercise.

Ventilation—It is conceded that the muslin front gives the best ventilation. Too much glass will cause the house to be too warm when the sun shines, and too cold at other times. At least one-half of the open surface should be covered with muslin, burlap or some other cloth material. In a house with gable room, a straw-loft may furnish sufficient ventilation. Hens will lay well in any house that is dry and comfortable, if fed a well-balanced ration of farm-grown feeds.—N. E. Chapman.

The Old-Fashioned Farmer.

The man of the soil is a well-equipped personage in spite of all his seeming deficiencies. He can't stop to theorize when things want doing. He must plod along and get work out of the way. Sometimes a couple of hours means the saving of a big field of hay or corn. The man on the job has to know how and has to act on the hour. A hurry-up call to get in five or six loads of hay before rain falls or to finish planting a field of grain means quick work and hard sweating hustle. The practical farmer meets all such problems as a matter of course. Usually he does not brag about what he accomplished. That is one trouble—he does not know how to put up a bluff and a lot of people think he does not know anything. I want to say that it is really marvelous what the old-fashioned farmer knows and does.

As a Farm Hand Sees It.

It is a little different down South, where the negro, mostly unreliable, always bobs up when the farm labor proposition comes in for discussion. But, in time, will come, maybe the European War will hasten it along, when we can consider it from the same standpoint as do our Western and Northern friends. In this connection, the following from "A Farm Hand," is interesting:

Some of the arguments used by union organizers are that unless we organize our conditions will be as bad as they are England. I don't believe the time will ever come in America when farm workmen will be treated as slaves—half-fed, overworked and poorly paid. American farmers, so far as I can judge by twenty years of experience, are disposed to treat workmen decently and pay fair wages. Of course, there are exceptions, but as a rule a good workman who does not watch the sun too closely and who is willing and industrious is appreciated. The class of American farm workmen is a great deal better than in England now, and as the condition of our farms is steadily improving the quality of workmen will grow better, not worse.

Advising Farmers.

A. N. Miller, a successful farmer of the Middle West, writes:

"Sometimes I fell annoyed at the freedom with which people give advice to farmers. At times it looks as though all the farmers needed guardians, judging by the amount of unsolicited advice they receive from city people. I do not mean to resent good, timely, sensible talk giving new ideas or practical suggestions. We all need that. Every branch of business is helped by an interchange of views, but it will relieve my mind to say that the average farmer knows his business better than other people possibly can.

"The chief trouble with the man in the country is that he is what they call unsophisticated. He does not put up much of a front. He is slow and careful, but that does not mean that he is stupid.

"Some of the best thinkers I have ever known were men who could not express themselves well and could not meet people in a bright way and let them know what was on their minds.

"Such farmers make poor bargains. They buy wrong and sell wrong and are apt to be imposed upon by glib brokers, agents, merchants and other city people with whom they have to do business."

BIG MEN IN MARKET ARE BULLISH ON WHEAT

Prices Are Going Up, but Higher Figures Fail to Bring Out General Selling.

CHICAGO, December 20.—The big men in the grain market in Chicago, as well as elsewhere, are on the bull side of wheat—not only in the futures, but in the cash as well. One of the leading men in this market, whose house controls more or less cash wheat, is James A. Patten, a member of the firm of Bartlett, Frazier & Co. Some of the other large speculators here are also bullish.

At Minneapolis nearly the entire milling and grain trade is bullish on wheat. The same conditions exist at Winnipeg, as well as in both the large southwestern markets. At New York and Baltimore there are many bulls on wheat.

A big grain concern received a telegram from Hastings, Neb., on Saturday, saying there had been an almost complete let-up in the movement of wheat, and as that section of the West has been furnishing large quantities of hard winter wheat, not only to Chicago, but to Minneapolis millers, as well as exporters, the cessation of shipments will be strongly felt and will prove a bullish factor.

The Updike Company, of Omaha, says the wheat of Nebraska has been cleaned up, and that bids of 120 1-4 sent out on Friday night, and which is equal to the Chicago price, failed to draw out any selling worthy of mention. With the present abnormally bullish conditions surrounding the wheat market, prices would be much higher with the public in that grain on the buying side

Corn has held up well in price, not only because there has been a better demand on export account, but mainly because of the great strength displayed in cash corn and the general belief that foreigners will require more of the golden cereal than they have been buying heretofore.

Oats have held their own in price and the export demand is now on the increase.

Conditions surrounding the provision market point to an improved business in lard.

INCREASE OF RATES MARKET'S CHIEF EVENT

All Other Happenings of Week Are Subordinated to Final Victory for Railroads.

NEW YORK, December 20.—All other events of the last week in the securities market, which included renewal of dealings in the full stock list, were subordinated to the Interstate Commerce Commission's decision granting increased freight rates on the railroads in the Eastern territory. The importance and extent of the action, which affects more than 1,000 roads was the subject of much debate. It would appear, however, that the increases, which exclude such important commodities as coal and iron ore, average from 3½ to 4 per cent on at least 80 per cent of total traffic. Stock prices reacted from the first upward rush of the week and were at lowest level when news of the decision became known. This resulted in a general recovery, though in no instance to Tuesday's high level, when full dealings were restored.

The higher range of that day evidently attracted some foreign selling, but not enough in itself to make a marked impression on values.

Monetary conditions showed steady improvement, the plan for a London credit fund being dropped. The cotton loan pool began operations, although it is still felt that this device is merely nominal, now that the loosening of bank credits through natural channels has become so general. Reductions of discounts of various Federal reserve banks offer added proof of this condition.

Foreign exchange continued to make further response to increasing favorable trade balance, the week being marked by heavy exports of cotton. Reichsmarks went steadily lower, the outcome, it was thought, of German sales of our stocks, and bills on London were decidedly easier.

The week's unfavorable factors involved dividend reductions by several of the more important railroads and poor returns of traffic income for November. In addition, the record acreage for winter wheat was offset by its low condition, as reported by the government.

PEOPLE OF JERUSALEM IN TERRIBLE PLIGHT

Dread Is Not of Massacre, But of Starvation—Jews Now Are Absolutely Dependent on Charity.

[Correspondence of Associated Press.]

LONDON, December 20.—The terrible plight of the inhabitants of Jerusalem is revealed in the following special dispatch to the London Jewish Chronicle from Jerusalem:

"The cloud of anxiety and distress which has been hanging over Jerusalem since Turkey decided to mobilize, has culminated in horror. The American flag flies over the British consulate, meaning that the English are left to the protection of the United States. The Anglo-Palentine bank flies the same flag, and on the premises of the Russian consulate the Italian colors float.

In Jerusalem the Jews number about 50,000 aliens, but the town is quiet. The dread is not of massacre, but of starvation. For more than a month now, of more than 60,000 Jews, 40,000 have been dependent upon the charity of the world, and that charity has ceased for the time being. The American relief fund of $50,000, the second installment of money from America, has just arrived, but is for Zionist purposes.

"It was brought by Maurice Wertheim, son-in-law of Ambassador Morgenthau. It has been splendid aid, but, of course, cannot meet the situation. Of this fund 47 per cent came to Jerusalem, 40 per cent being spent in soup kitchens, where a plate of soup and bread is served once a day. The other 7 per cent is to serve as a loan fund for workmen and also for the sale of foodstuffs at cost price.

"The men chosen by America or their agents are: Ephraim Copman, in Jerusalem; Dr. A. Ruppin, in Jaffa, and Mr. Avonsohn, in the Palestine College."

Plentiful Ice Harvest.

[Special to The Times-Dispatch.]

LYNCHBURG, VA., December 20.—People in the sections around Lynchburg during the past week have harvested ice from three to four inches in thickness. It is very unusual for the rural sections to gather ice in central Virginia before January or February.

WEEK'S TRADE IN COTTON SENDS PRICES SKYWARD

Gains of 20 to 31 Points Scored in Futures—Heavy Clearance for Europe Have Been Made.

NEW ORLEANS, December 20.—Cotton futures made a net gain of 20 to 21 points as the result of last week's trading. The market had a good undertone throughout the week as the result of buying, which was stimulated by increasing exports, large mill takings, and the demand for spots in the interior.

Exports were larger than during any week this season. Not only was the movement big, but freight broke stated that forward freight engage ments were large enough to warran the prediction that clearances would b heavy for some time to come.

Statistics of the week showed tha the total amount of cotton afloat fo Europe from this country was actuall larger than it was at this time las year, the figures being 831,000 bale against 795,000.

This week's business, necessarily will be restricted by the approach o the holidays. The market will clos on Thursday night until Monday Traders on both sides will be more in clined to even up than to enlarge thei holdings.

The movement of cotton at the port will be closely watched because o forecasts of the bulls that end of De cember engagements are very large Further large clearances will be further sustaining influence of im portance. On the other hand, bears ex pect that this week will see consid erable cotton offered in the interio by farmers who want to realize Christ mas money and they expect such of fering to be a pressure of the market

Official Visit to Knights.

[Special to The Times-Dispatch.]

LYNCHBURG, VA., December 20.—Robert F. Taylor, grand commande of the Virginia Knights Templars, wil pay an official visit to DeMolay Com mandery here to-morrow night.